AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

CLAIMS

Claims 1 to 25 (canceled).

26. (previously presented) A circuit for trimming a functional resistor, the circuit comprising:

a plurality of functional resistors thermally-isolated on a substrate; and

trimming circuitry for subjecting a portion of the substrate to heat pulses such that a resistance value of one of said plurality of functional resistors is trimmed while a resistance value of remaining ones of said plurality of functional resistors remains substantially untrimmed.

27. (previously presented) A circuit as claimed in claim 56, wherein said trimming circuitry comprises circuitry for passing a signal through said one of said plurality of functional resistors.

28. (previously presented) A circuit as claimed in claim 56, wherein said trimming circuitry comprises at least one heating resistor on said micro-platform for receiving a signal and trimming said one of said plurality of functional resistors.

29. (original) A circuit as claimed in claim 28, wherein each of said at least one heating resistor traces at least one of said plurality of functional resistors.

30. (original) A circuit as claimed in claim 29, wherein a first pair of functional resistor and heating resistor is grouped and embedded with a second pair of functional resistor and heating element so that locations of portions of said first pair and said second pair alternate on said thermally-isolated micro-platform.

31. (original) A circuit as claimed in claim 30, wherein said portions of said first pair and said second pair are separated by slots in said thermally-isolated micro-platform, thereby reducing heat transfer and increasing thermal isolation between said first pair and said second pair.

32. (original) A circuit as claimed in claim 31, wherein said slots are continuous.

33. (previously presented) A circuit as claimed in claim 56, wherein said trimming circuitry comprises circuitry for transmitting a plurality of electrical pulses and measuring said resistance value of one of said plurality of functional resistors in between each of said plurality of electrical pulses to determine whether a target resistance value has been obtained.

34. (previously presented) A circuit as claimed in claim 56, wherein said trimming circuitry comprises circuitry for transmitting dynamically-shaped pulses to achieve substantially constant temperature as a function of time during a trimming pulse.

35. (withdrawn)

36. (withdrawn)

37. (withdrawn)

38. (withdrawn)

39. (withdrawn)

40. (withdrawn)

41. (withdrawn)

42. (previously presented) A circuit for trimming a functional resistor, the circuit comprising:

a functional resistor on a substrate subject to a heat source having a power dissipation geometry adapted to obtain a substantially constant temperature distribution across said functional resistor when a temperature of said functional resistor is raised for trimming purposes; and

trimming circuitry for trimming the functional resistor.

43. (previously presented) A circuit as claimed in claim 58, wherein said heat source comprises a heating resistor on said thermally-isolated micro-platform in close proximity to said functional resistor, and wherein said trimming circuitry comprises circuitry for passing a signal through said heating resistor to trim said functional resistor.

44. (previously presented) A circuit as claimed in claim 58, wherein said power dissipation geometry comprises a heater path that encircles the functional resistor.

45. (previously presented) A circuit as claimed in claim 58, wherein said power dissipation geometry further comprises a heater path that provides more heat to edges of the functional resistor and resulting temperature gradients across the at least one thermally-isolated micro-platform.

46. (previously presented) A circuit as claimed in claim 58, wherein said power dissipation geometry comprises a heater path that substantially encloses said functional resistor with said heating resistor.

47. (previously presented) A circuit as claimed in any one of claims 58, wherein said power dissipation geometry further comprises an increased density of resistive lines near locations where there is greater heat loss to compensate for the heat loss.

48. (previously presented) A circuit as claimed in claim 58, wherein said trimming circuitry for heating comprises circuitry for transmitting a plurality of electrical pulses and measuring said resistance value of one of said plurality of functional resistors in between each of said plurality of electrical pulses to determine whether a target resistance value has been obtained.

49. (previously presented) A circuit as claimed in claim 58, wherein said trimming circuitry for heating comprises circuitry for transmitting dynamically-shaped pulses to achieve substantially constant temperature as a function of time during a trimming pulse.

50. (canceled)

51. (canceled)

52. (canceled)

53. (canceled)

54. (withdrawn)

55. (withdrawn)

56. (previously presented) A circuit as claimed in claim 26, further comprising a thermally-isolated micro-platform on said substrate, and wherein said plurality of functional resistors are on said thermally-isolated micro-platform.

57. (withdrawn)

58. (previously presented) A circuit as claimed in claim 42, further comprising a thermally-isolated micro-platform on said substrate, and wherein said functional resistor is on said thermally-isolated micro-platform.

59. (withdrawn)